

COSTA RICAN CLIMATOLOGICAL DATA.

Communicated by Mr. H. PITTIER, Director, Physico-Geographic Institute.

TABLE 1.—Hourly observations at the Observatory, San José de Costa Rica, during September, 1904.

Hours.	Pressure.		Temperature.		Relative humidity.		Rainfall.	
	Observed, 1904.		Normal, 1889-1903.		Observed, 1904.		Normal, 1889-1903.	
	Normal,	1889-1903.	Normal,	1889-1903.	Normal,	1889-1903.	Normal,	1889-1903.
1 a. m.	Inches.	Inches.	° F.	° F.	%	%	Ins.	Ins.
2 a. m.	26.14	26.13	63.3	63.5	94	94	0.04	0.03
3 a. m.	26.13	26.12	63.0	63.0	93	94	0.02	0.02
4 a. m.	26.11	26.11	62.8	62.6	93	94	0.03	0.03
5 a. m.	26.11	26.10	62.4	62.2	93	93	0.04	0.02
6 a. m.	26.11	26.10	62.2	62.1	93	93	0.06	0.01
7 a. m.	26.12	26.11	62.5	61.7	91	90	0.23	0.01
8 a. m.	26.13	26.13	62.7	62.8	90	92	.....	0.01
9 a. m.	26.14	26.14	66.4	66.6	80	84	.....	0.00
10 a. m.	26.15	26.15	70.0	69.4	74	76	0.02	0.01
11 a. m.	26.15	26.15	72.3	73.8	72	71	0.01	0.01
Noon	26.15	26.15	74.1	75.7	68	67	0.08	0.02
Midnight	26.13	26.14	75.0	77.0	66	68	0.03	0.11
Mean	26.11	26.12	75.7	75.7	69	69	0.24	0.06
Minimum	26.09	26.10	74.9	75.9	69	72	0.56	0.98
Maximum	26.09	26.08	73.9	73.8	72	77	2.04	1.09
Total	26.15	26.15	76.0	76.0	66	68	0.03	0.33

REMARKS.—At San José the barometer is 3,835 feet above sea level. Readings are corrected for gravity, temperature, and instrumental error. The hourly readings for pressure, and wet and dry bulb thermometers, are obtained by means of Richard registering instruments, checked by direct observations every three hours from 7 a. m. to 10 p. m. The thermometers are 5 feet above ground and are corrected for instrumental errors. The total hourly rainfall is as given by Hottinger's self-register, checked once a day. Under maximum, the greatest hourly rainfall for the month is given. The standard rain gage is 5 feet above ground. Since January 1, 1902, observations at San José have been made on seven-fifths meridian time, which is 0 hours, 36 minutes, 18.3 seconds *in advance* of San José local time. The normals for pressure, temperature, and relative humidity have been adjusted to this time; the normal for rainfall in Table 1 and the sunshine observations and normal in Table 2 refer to local time. At Port Limón the hours of direct observation are 8 a. m., 2 and 8 p. m., San José local time; the barometer is 14 feet above sea level. The means for temperature and relative humidity in Table 4 are obtained from two-hourly readings given by a Richard self-registering thermometer.

TABLE 2.—San José, September, 1904.

Time.	Sunshine.		Cloudiness.		Temperature of the soil at depth of—				
	Observed, 1904.	Normal 1889-1903.	Observed, 1904.	Normal 1889-1903.	6 inches.	12 inches.	24 inches.	48 inches.	126 inches.
					Hours.	Hours.	%	%	° F.
7 a. m.	8.61	9.23	64	55	5	69.3	69.6	70.5	70.5
8 a. m.	19.80	20.32							
9 a. m.	19.63	21.95							
10 a. m.	16.46	21.81	67	62	69.8	69.3	70.5	70.5	.....
11 a. m.	12.91	19.64							
Noon	8.65	16.33							
1 p. m.	8.59	12.81	81	86	69.8	69.6	70.5	70.5	.....
2 p. m.	7.82	11.86							
3 p. m.	9.69	8.94							
4 p. m.	5.63	4.72	95	98	70.3	70.0	70.5	70.3	.....
5 p. m.	3.70	2.30							
6 p. m.	0.25	0.76							
7 p. m.			86	91	70.3	70.2	71.2	70.3	.....
8 p. m.									
9 p. m.									
10 p. m.			67	76	70.2	70.2	70.7	70.3	.....
11 p. m.									
Midnight									
Mean			77	77	69.8	69.8	70.6	70.3	70.3
Total	122.74	150.58							

TABLE 3.—Rainfall at stations in Costa Rica, September, 1904.

Stations.	Height above sea level.	Observed, 1904.		Averages.	
		Amount.	Number of days.	Number of years.	Amount.
Sipurio (Talamanca)	197	.....	.....	4	9.49
Boca Banano	10	17.88	20	8	5.00
Bearensem Farm		15.04	12		15
Port Limon	10	14.61	19	10	4.41
Coro Farm		25.35	24		7
Swamp Mouth	10	1.57	17	6	5.67
Zent	66	12.05	22	3	4.21
Victoria		46.97	27		12
Siquirres	197	0.63	9	6	4.29
Colombiana		17.40	27		11
Guapiles		984	27	4	15.59
San Carlos		16.77	23		17
Las Lomas		873	3.35	4	12.52
Peralta	1,089	2.40	29	6	10.16
Turrialba	2,034	8.70	16	9	7.32
Juan Vinas	3,412	1.73	9	8	5.43
Santiago	3,609	13.82	25	3	7.24
Cachi		3.46	29	3	5.75
Paraiso		4.383	30	3	7.60
Cartago	4,761	.....	3		20
Tres Rios	4,265	13.03	20	15	12.09
San Francisco Guadalupe	3,894	9.17	22	8	11.10
San José	3,806	7.99	21	15	12.32
La Verbenia	3,740	6.38	19	8	11.69
Nuestro Amo	2,595	7.05	13	8	10.12
Alajuela	3,117	8.46	19	4	9.69
San Isidro Alajuela	4,416	8.35	15	3	23.25
Puntarenas		5.24	12		
Las Cañas	2,569	4.49	8		

Notes on earthquakes.—September 11, 1^h 19^m a. m., pretty heavy shock N.-S., intensity III, duration 3 seconds; 2^h 55^m a. m., light shock NE.-SW., intensity I, duration 1 second. The first shock was felt in Port Limón.

CLIMATOLOGICAL DATA FOR JAMAICA.

Through the kindness of Mr. H. H. Cousins, chemist to the government of Jamaica and now in charge of the meteorological service of that island, we have received the following table in advance of the regular monthly weather report for Jamaica:

Comparative table of rainfall for September, 1904.

[Based upon the average stations only.]

Divisions.	Relative area.	Number of stations.	Rainfall.	
			Per cent.	Inches.
Northeastern division	25	25	5.66	8.01
Northern division	22	52	3.89	5.00
West-central division	26	26	9.98	9.85
Southern division	27	36	6.42	6.46
Means	100	139	6.49	7.33

The rainfall for September was, therefore, below the average for the whole island. The greatest rainfall, 27.20 inches, occurred at Carew Castle, in the central subdivision, while 0.69 inch was recorded at Day Harbor, in the northern division.